

Applicant: Williams et al.
For: MOLECULAR RECOGNITION SENSOR SYSTEM

ABSTRACT OF THE DISCLOSURE

A molecular recognition sensor system for detecting the presence and concentration
5 of an analyte including a resistive sensor having a semiconductive polymer film which
swells when exposed to an analyte and interferents and a molecular imprinted resistive
sensor having a semiconductive polymer film imprinted with the analyte which thereby
swells when exposed to interferents, a circuit connected to the resistive sensor and the
molecular imprinted resistive sensor for detecting a change in the resistance of the resistive
10 sensor when exposed to the analyte and the interferents, the change in the resistance of the
molecular imprinted resistive sensor when exposed to the analyte and interferents, and for
subtracting the change in resistance of the molecular imprinted resistive sensor from the
change in resistance of the resistive sensor to reduce the effect of any interferents on the
change in resistance of the resistive sensor thereby determining the presence and
15 concentration of the analyte.